

13.—*Some New Species of Anomodontia (Reptilia)*.—By R. BROOM, D.Sc., C.M.Z.S., and S. H. HAUGHTON, B.A., F.G.S., Assistant Director.

(With 6 Text-figures.)

GENUS DICYNODON, Owen.

DICYNODON CORSTORPHINEI, sp. nov.

A small skull and lower jaw collected by the Rev. J. H. Whaits at Graaff Reinet (S.A. Mus. Cat., No. 3337) seems to belong to an undescribed species, although in general appearance it partakes somewhat of the nature of *Dicynodon lutriceps*.

The most noteworthy characters are the shortness of the beak, the shape of the postfrontal, and the position of the pineal foramen. The skull is depressed. The intertemporal bar is wider than the interorbital region. The orbit is fairly large, looking more upwards than outwards. The postfrontal extends outwards along the postorbital bar somewhat in the manner seen in *Eocyclops longus*. The preparietal is long and forms the anterior border of the pineal foramen, which is very far back—half way along the fairly long parietal bar. The portions of the parietals behind the foramen are thus short and broad, overlapped for more than half their width by the postorbitals and truncated posteriorly by the interparietal. The interparietal in its upper portion has a strong median ridge. The occipital condyle is of the tripartite type.

The specimen is tuskless.

The chief measurements are:

Greatest length	160 mm.
Greatest width	ab. 150 ,,
Basal length	143 ,,
Interorbital width	25 ,,
Intertemporal width	30 ,,
Snout to front of orbit	40 ,,
Length of preparietal	21 ,,

From *Dicynodon tetriceps* this type seems to differ in having the intertemporal width greater than the interorbital, in not having the parietals so fully covered by the postorbitals, in the position of the pineal foramen, and in the size of the preparietal.

The form is also strongly reminiscent of *D. mustoi*; but the latter is somewhat more slenderly built, the pineal foramen is further forward, and the postfrontal is a much larger bone.

The chief resemblance, however, is to Owen's *Oudenodon baini*, as far as can be judged from the figure of the latter. The two agree in general shape, in the relation between the interorbital and intertemporal width, and in the position of the pineal foramen. The species

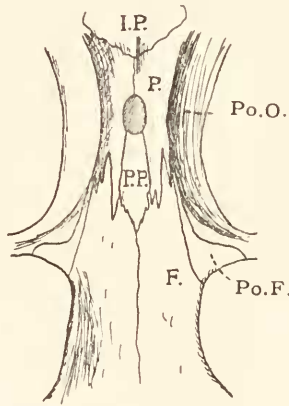


FIG. 19.—*Dicynodon corstorplinei*, Br. and Htn. Type, No. 3337. Temporal and frontal regions. $\times 0.7$.

Oudenodon baini cannot, however, stand. In the first place, we know that *Oudenodon* is but the female of *Dicynodon*; Owen had previously described another specimen as the type of *Dicynodon baini*; and, lastly, *Dicynodon baini* is but a synonym for *D. tigriceps*.

Type.—Skull without tusks, and lower jaw (S.A. Mus. Cat., No. 3337).

Locality.—Heuning Nest Krantz, Graaff Reinet, C.P.

Horizon.—Lower Beaufort Beds, *Endothiodon* zone (?).

DICYNODON CAVIFRONS, sp. nov.

This new species is founded on a skull from Fraserburg, C.P., collected by the late T. Bain, Esq.

The chief measurements are:

Greatest length (oblique)	215 mm.
Greatest width	ab. 200 „
Interorbital width	31 „
Intertemporal width	37 „
Width across nasals	42 „
Width between nostrils	ab. 25 „
Width between canines	30 „
Basal length	172 „

The orbits are triangular, their superior borders considerably shorter than the others, and lie entirely in the anterior half of the skull. The frontal is considerably hollowed out, and is narrower than the flattened parietal region. The snout is short and weak. The tusks

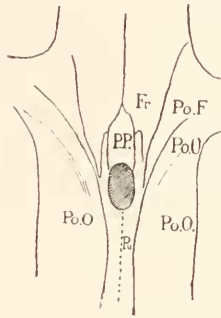


FIG. 20.—*Dicynodon cavifrons*, Br. and Htn. Type, No. 747. Preparietal region. $\times \frac{1}{2}$.

project downwards and are midway below the nostrils and orbits. The postorbitals are large, and almost meet in the middle line above the parietals. The postfrontal is an elongate triangular bone. The squamosal extends far back behind the occipital plate.

Type.—Skull lacking outer arches (S.A. Mus. Cat., No. 747).

Locality.—Fraserburg, C.P.

Horizon.—Lower Beaufort Beds, probably *Cistecephalus* zone.

DICYNODON ROGERSI, sp. nov.

Some years ago Dr. Rogers collected in the Thee Kloof, Nieuweveld, C.P., an almost complete skull and lower jaw which was regarded as a male specimen of *D. kolbei*. Recent examination has, however, led us to consider that it may well be taken as the type of a new species. The skull is in a good state of preservation, and shows most of the sutures of the top of the skull.

The snout is slightly longer, and the nasal bosses are not so well developed as in *D. kolbei*. The orbit is both relatively and absolutely shorter, although of similar shape. The parietal bar also differs. The ridges, instead of approximating most closely to each other in the posterior half of the bar as in *D. kolbei*, are closest at the front of the

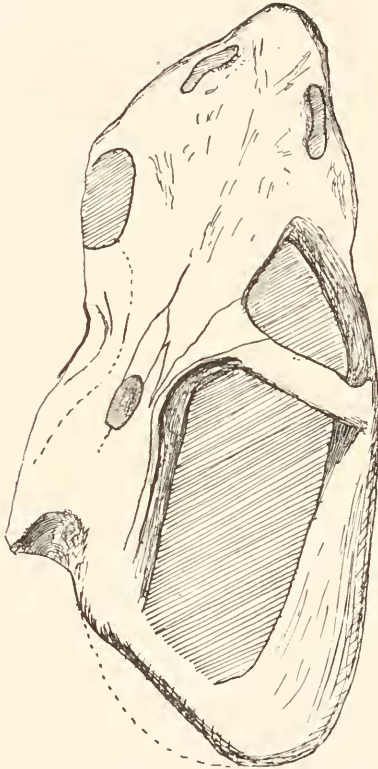


FIG. 21.—*Dicynodon rogersi*, Br. and Htn. Type, No. 2356. $\times \frac{1}{3}$.

bar and diverge gradually posteriorly. The postfrontal does not narrow so rapidly as in *D. kolbei* and consequently covers a greater area. The preparietal has its two sides parallel and not convergent posteriorly, and forms a large portion of the anterior half of the parietal foramen. The temporal fossa is long and regularly oblong in shape. The preparietal region is hollowed out.

A rare character displayed by the type is the feeble and anteriorly directed tusks. They arise directly below the nostrils,

The chief measurements of the skull are :

Greatest length (oblique)	. . . . .	ab. 290 mm.
Greatest width	. . . . .	228 "
Interfrontal width	. . . . .	50 "
Intertemporal width	. . . . .	45 "
Basal length	. . . . .	ab. 230 "
Width across nasals	. . . . .	48 "
Width between nostrils	. . . . .	28 "

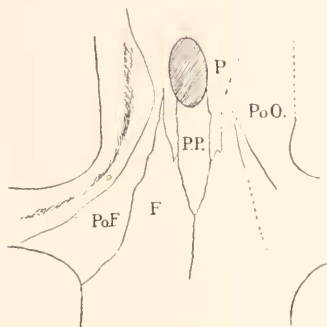


FIG. 22.—Preparietal region of same. $\times \frac{1}{2}$.

Type.—Skull (S. Af. Mus. Cat., No. 2356).

Locality.—Thee Kloof, Nieuwveld, C.P.

Horizon.—Lower Beaufort Beds, bottom of *Cistecephalus* zone.

DICYNODON PYGMAEUS, sp. nov.

This is one of the smallest known species of *Dicynodon*. As two or three specimens were obtained from the same locality of about similar size, it seems probable that the specimen represents a small species rather than a young individual.

The species is characterised by the relatively great width of the anterior ends of the parietals, which causes the preparietal region to be nearly twice as wide as the frontal.

The frontals are large, and extend well back by the sides of the preparietal. The postfrontals are very slender. The postorbitals are large, the posterior portions being broad and rather flat. The squamosals are relatively less developed than in most species.

The following are the principal measurements:

Greatest length	66 mm.
Greatest width	ab. 50 „
Interorbital width	11 „
Intertemporal width (minimum)	15 „

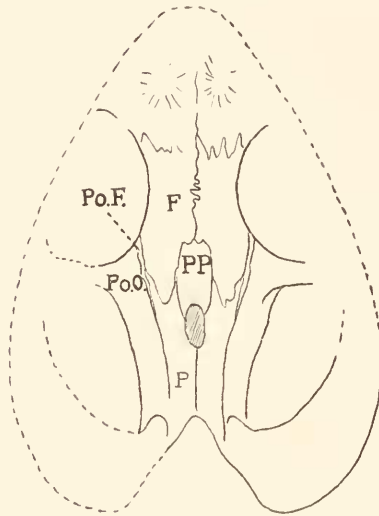


FIG. 23.—*Dicynodon pygmaeus*, Br. and Htn. Type, No. 2664. Natural size.

Type.—Female skull (S. Af. Mus. Cat., No. 2664).

Locality.—Dunedin, Beaufort West, C.P.

Horizon.—Lower Beaufort Beds, *Cistecephalus* zone.

GENUS EMYDOPS, Broom.

EMYDOPS PLATYCEPS, sp. nov.

This little skull, while representing a new species, is not sufficiently well preserved to enable us to say with perfect certainty that it belongs to the genus *Emydops*. It agrees, however, sufficiently closely with the known species of *Emydops* to admit of its being placed here at least provisionally.

There is a slender tusk which is directed downwards and forwards, and at least one slender molar tooth. The parietal region is broad and transversely concave. The relations of all the bones in the preparietal region are as in previously known species of *Emydops*, but the proportions differ considerably, as will be seen from the figure given.

The following are the principal measurements :

Greatest length	53 mm.
Greatest width	37 „
Interorbital width	10 „
Intertemporal width	15 „
Basal length	48 „
Minimum width across pterygoids	6 „
Width across palate between tusks	12.5 mm.

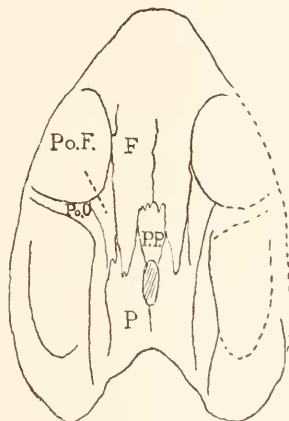


FIG. 24.—*Emydops platyceps*, Br. and Htn. Type, No. 2667. Natural size.

Type.—Skull (S. Af. Mus. Cat., No. 2667).

Locality.—Dunedin, Beaufort West, C.P.

Horizon.—Lower Beaufort Beds, *Cistecephalus* zone.

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